

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



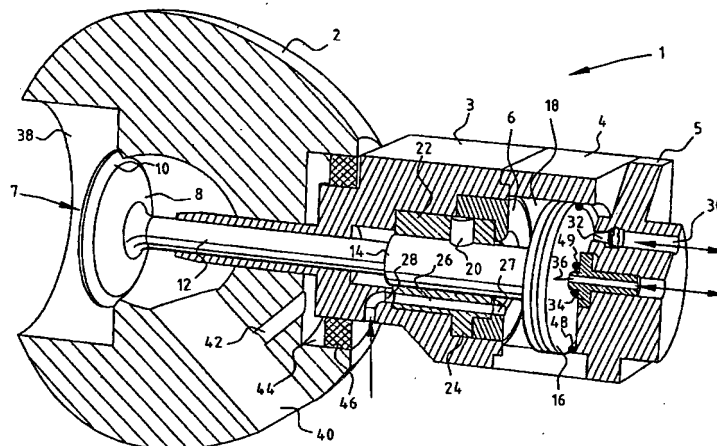
(43) International Publication Date  
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number  
**WO 2004/092550 A1**

- (51) International Patent Classification<sup>7</sup>: **F01L 9/02**, (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE (utility model), DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (21) International Application Number: PCT/NL2003/000458
- (22) International Filing Date: 20 June 2003 (20.06.2003)
- (25) Filing Language: Dutch
- (26) Publication Language: English
- (30) Priority Data: 1023209 17 April 2003 (17.04.2003) NL
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant and  
(72) Inventor: **TRUIJENS, Franklin, Hubertus** [NL/NL]; Lage Vuurscheweg 3, NL-1251 TS Laren (NL).
- (74) Agent: **VERNOUT, Robert**; Sweelinckplein 1, NL-2517 GK The Hague (NL).
- Published:  
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VALVE GEAR AND METHOD FOR OPENING AND CLOSING A PASSAGE



(57) Abstract: A valve gear comprising a housing provided with a passage, a valve member arranged within said housing, which is movable between a first, closed position, in which the passage is closed, and a second, open position, a piston connected to the valve member, which can oscillate in an at least substantially closed piston chamber, and locking means which are capable of holding the valve member periodically in the closed position, wherein the piston chamber is provided with at least three closable openings, which may each be in communication with gas pressure means, wherein the first opening and the second opening are each in communication with another part of the piston chamber separated therefrom by the piston, and which are open when the valve member is held in the closed position, and wherein the third opening is open during movement of the piston.

WO 2004/092550 A1